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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,154	11/24/2003	Bernard Favre-Bulle	DT-6685	9264

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EXAMINER

SHARP, JEFFREY ANDREW

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 05/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/723,154

Applicant(s)

FAVRE-BULLE ET AL.

Examiner

Jeffrey Sharp

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
- 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
- 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

- [1] Claims 1-4 are pending.

Specification

- [2] The disclosure is objected to because of the following minor informalities:

Page 7, last line, "neopren" should be --neoprene--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

- [3] The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

- [4] Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Raber US-4,177,999.

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Raber teaches a fastening element comprising: a load application part (32) having a stem and flat free-end surface (either side of 32), a washer (67,68) having a recess (76,78) adjacent to the flat free-end surface (edge 14), and an energy dissipation element (77,79) of plastically-deformable plastic¹ material. Both the energy dissipation element (5,5a-5d) and the washer recess (4,4a,4b) are circular².

Note that "all materials have a yield strength, beyond which elastic deformation no longer takes place."³ In other words, with few exceptions, all materials can be broadly construed as a plastically deformable material. See, also US-6,352,398 to Gonnet which shows a plastically deformable plastic material

As for claim 4, Raber suggests that plastically deformable washers (e.g., "disk-shaped sealing elements") are conventionally used below load application parts, where water penetration and vibration is a concern⁴.

Claim Rejections - 35 USC § 103

[5] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

¹ See NPL definitions for "plastic."

² Pertinent to instant claim 2, col. 2 line 31.

³ NPL Stress, Strain, and the Physics of Earthquake Generation, Dr. Michael Hamberger, Indiana University.

⁴ Col 1. lines 24-35.

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[6] Claims 1-4 rejected under 35 U.S.C. 103(a) as being unpatentable over Gonnet US-6,352,398.

Gonnet teaches a shock-absorbing fastening element comprising: a load application part (10) having a stem (11) and flat free-end surface (edge 14), a washer (1) having a recess (4,4a,4b) adjacent to the flat free-end surface (edge 14), and an energy dissipation element (5, 5a-5d) of plastically-deformable plastic material⁵ situated in the recess. Both the energy dissipation element (5,5a-5d) and the washer recess (4,4a,4b) are circular⁶. There is enough space on the peripherals of the recess to allow a substantial radially outward expansion of the energy dissipation element (5,5a-5d).

However, Gonnet is silent as to the specific material choice for the washer. Gonnet also provides a disk-shaped sealing element (20) having an aperture (21) that is arranged on an end of the washer⁷, but not on the same end as the recess.

At the time of invention, it would have been obvious to modify the washer taught by Gonnet, to specify metal as the material, as has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering design choice. *In re Leshin*, 125 USPQ 416. It is also common knowledge to choose a material that has sufficient strength, durability, flexibility, hardness, etc. for the application and intended use of that material. The examiner takes official notice that metal is a common choice of material for washers.

Further, at the time of invention, it would have been obvious to one of ordinary skill in the art, to rearrange the parts of Gonnet so that the disc-shaped element (20) is arranged on the

⁵ Col. 5 lines 49-52, pertinent to instant claim 3.

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recess (4,4a,4b) end of the washer (1) as it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. See also, *In re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975) (the particular placement of a contact in a conductivity measuring device was held to be an obvious matter of design choice). Also note that it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167. See also, MPEP § 2144.04, which states: *In re Gazda*, 219 F.2d 449, 104 USPQ 400 (CCPA 1955) (Prior art disclosed a clock fixed to the stationary steering wheel column of an automobile while the gear for winding the clock moves with steering wheel; mere reversal of such movement, so the clock moves with wheel, was held to be an obvious expedient.). US-1,497,859 to Lilly specifically shows that it is obvious to invert a metal washer. In the instant case, Gonnet broadly suggests to those of ordinary skill in the art, a washer (1) having an enlarged recess means (4,4a,4b) for allowing a shock-absorbing element (5,5a-5d) to expand upon a percussion applied to a load application part (10)⁸. The washer and energy dissipation element subassembly could obviously be inverted.

Conclusion

[7] The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is as follows:

US-2,752,814 to IAIA and US-3,746,348 to Stone teach that is well-known to design a circular recess to have a diameter slightly larger than an energy dissipation element to allow

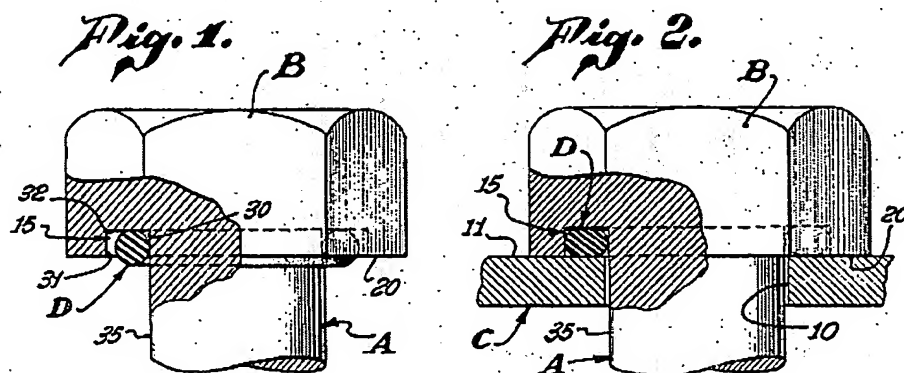
⁶ Pertinent to instant claim 2, col. 2 line 31.

⁷ Pertinent to instant claim 4.

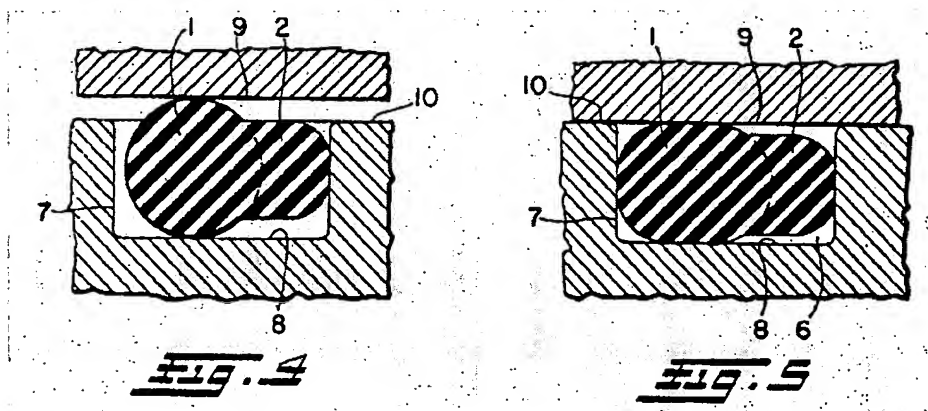
⁸ Col. 2 lines 64-67.

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room for outward deformation. The energy dissipation element is further designed to *"project[ing] beyond the free flat end surface"*.



U-2752,814 to IAIA



US-3,746,348 to Stone


[8] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Sharp whose telephone number is (571) 272-7074. The examiner can normally be reached 7:00 am - 5:30 pm Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on (571) 272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAS



4/28/05



ROBERT J. SANDY
PRIMARY EXAMINER